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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/866,722

05/30/2001

Gakuji Uozumi

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06/22/2004

EXAMINER

PHU, SANH D

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1233 20TH STREET N.W., SUITE 501
WASHINGTON, DC 20036

ART UNIT

PAPER NUMBER

2682

9

DATE MAILED: 06/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/866,722

Applicant(s)

UOZUMI, GAKUJI

Examiner

Sanh D Phu

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the applicant's amendment filed on 5/20/04.

Claim Rejections – 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is

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determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1⁷, 6 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Watkins (6,317,027).

–As per claim 1, see figure 3, and col. 6, line 44 to col. 7, line 48,

Watkins discloses a system comprising:

an antenna element (14, 16); and

a capacitor (22) which is connected in series to said antenna element and having a variable capacitance to maintain a predetermined resonance frequency.

–As per claim 2, Watkins discloses that said capacitance of said capacitor is made variable by switching a switch (S1... S4) (see figure 3).

–As per claim 6, Watkins discloses that said switch is controlled by a control circuit (40) (see figure 3) for detecting a deviation of said resonance frequency and controlling said resonance frequency to a predetermined frequency (see col. 6, line 60 to col. 7, line 25).

–As per claim 9, Watkins discloses that a predetermined communication distance is ensured by varying a drive voltage (peak resonance) of said antenna device (see col. 6, line 60 to col. 7, line 25).

4. Claims 1–5, 7, 9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Suga et al (6,321,067).

As per claim 1, see figures 8a and 8b, and col. 11, lines 26–49, Suga et al discloses a system comprising:

an antenna element (25, 26); and

a capacitor (C1, C2) which is connected in series to said antenna element and having a variable capacitance to maintain a predetermined resonance frequency (see figure 8b).

–As per claim 2, Suga et al discloses that said capacitance of said capacitor is made variable by switching a switch (S1, S2) (see figure 8a).

–As per claim 9, Suga et al discloses that a predetermined communication distance is ensured by means (32) varying a drive voltage (peak resonance) of said antenna device (see figures 8a and 8b, and col. 11, lines 26–49).

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-As per claims 3, 4 and 7, see figures 9a and 8b, and col. 11, lines 26-64, Suga et al discloses a system comprising an antenna coil having a coil, and a variable inductor (T1,, T3) having taps which are switched from one another to maintain a predetermined resonance frequency.

-As per claim 5, Suga et al discloses that said taps are converted by switching a switch (see figure 9a).

-As per claim 11, Suga et al discloses that a predetermined communication distance is ensured by means (32) varying a drive voltage (peak resonance) of said antenna device (see figures 9a and 8b).

Claim Rejections – 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-5, 7, 8, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watkins in view of Suga et al.

As per claims 3, 4 and 7, see figures see figure 3, and col. 6, line 44 to col. 7, line 48, Watkins discloses a system comprising an antenna coil (14), and a variable capacitor (22) having taps which are switched from one another to maintain a predetermined resonance frequency.

Watkins does not disclose a variable inductor, as claimed. However, using a variable capacitor or a variable inductor in an antenna circuit, as equivalent ways, to set the resonant frequency of the antenna circuit to a predetermined frequency is well known in the art. For instant, Suga et al teaches using a variable capacitor (C1, C2) or a variable inductor (T1, T2, T3) in an antenna circuit, as equivalent ways, to set the resonant frequency of the antenna circuit to a predetermined frequency (see figures 8a, 8b and 9a).

Therefore, it would have obvious for one skilled in the art, when building Watkins system, upon his design preference, to use a variable capacitor (22), as taught by Watkins, or an equivalent variable inductor, as taught by Suga et al, having taps which are switched from one another to maintain a predetermined resonance frequency, without changing the overall system performance.

-As per claim 5, Suga et al discloses that said taps are converted by switching a switch (see figure 9a).

-As per claim 11, Watkins discloses that a predetermined communication distance is ensured by varying a drive voltage (peak resonance) of said antenna system (see col. 6, line 60 to col. 7, line 25).

Claim 10 is rejected with similar reasons set forth for claim 6.

Claim 8 is rejected with similar reasons set forth for claim 6.

Response to Arguments

7. Applicant's arguments, filed 5/20/04, with respect to the restriction have been fully considered and are persuasive. The restriction has been withdrawn.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D Phu whose telephone number is (703)305-8635. The examiner can normally be reached on 8:00-16:30.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sanh D. Phu
Examiner
Art Unit 2682

SP


LEE NGUYEN
PRIMARY EXAMINER